

CANDIDA IN ORAL LICHEN PLANUS: A HISTOPATHOLOGICAL ANALYSIS

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Oral lichen planus (OLP) is a chronic inflammatory disorder of unknown etiology and *Candida* species are common fungal organisms that live as commensals in the oral cavity. Although the yeast forms of *Candida* are non-pathogenic, hyphal forms have been implicated in the etiology of several disease processes. Evaluation of scientific literature regarding colonization of *Candida* species in OLP revealed controversial results. Therefore, the aim of the study was to evaluate the prevalence of *Candida* histopathologically in OLP lesions and to correlate the presence of *Candida* with the clinical form of the disease.

Sixty five formalin fixed paraffin embedded histopathologically confirmed OLP samples were used for the study. Paraffin embedded blocks were prepared from incisional biopsies obtained prior to treatment with steroids. In addition, fifteen previously diagnosed Frictional keratosis tissue blocks were used as the control. Clinical features such as age, gender and type of lesion (reticular, plaque like or erosive) were obtained from the request forms while only OLP and Frictional keratosis lesions involving buccal mucosa were analyzed in the present study to avoid bias. From each block 4µm thick tissue sections were stained with Diastase resistant periodic acid Schiff (D-PAS) stain to evaluate the presence of candidal hyphae invading in to the superficial epithelium of OLP lesions.

The results revealed histopathological evidence of *Candida* in 26% (17/65) of OLP and in 0% (0/15) Frictional keratosis lesions. This finding was statistically significant when analyzed by Chi-square test at 5% level. The mean age of OLP patients with and without candidal infection was 41.4 and 42.7 years respectively. Forty seven percent and 41% of OLP lesions with and without candidal infection were present in males while the remaining lesions were present in females. As such no statistically significant differences could be established between age/gender and candidal carriage in OLP lesions. Forty two percent, 31% and 26% of erosive, plaque like and reticular OLP lesions showed superficial candidal infection respectively. Although not statistically significant *Candida* was more frequently found in erosive form compared to plaque like or reticular OLP lesions.

In conclusion, even though candidal hyphae have been identified in 26% of OLP lesions, it is not adequate to establish an etiological role of *Candida* in OLP as the presence of *Candida* can also be attributed to secondary infection. However, as the hyphal forms are pathogenic, in *Candida* positive OLP patients, addition of antifungal medication may provide beneficial results.